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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/827,927	04/09/2001	Takeo Hara	205746US0	8486
22850	7590	02/23/2004	EXAMINER	
OBLON, SPIVAK, MCCLELLAND, MAIER & NEUSTADT, P.C. 1940 DUKE STREET ALEXANDRIA, VA 22314			TRINH, MICHAEL MANH	
			ART UNIT	PAPER NUMBER
			2822	

DATE MAILED: 02/23/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/827,927

Applicant(s)

HARA ET AL.

Examiner

Michael Trinh

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-- The MAILING DATE of this communication appears on the cover sheet with the corresponding address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 21 November 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-57 is/are pending in the application.
- 4a) Of the above claim(s) 1-11 and 13-57 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 12 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

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DETAILED ACTION

*** This office action is in response to Applicant's response filed on November 21, 2003.

Claims 1-57 are currently pending, in which claims 1-11 and 13-57 are non-elected.

*** The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Election/Restrictions

1. This application contains claims 1-11 and 13-57 drawn to an invention nonelected with traverse in Papers No. 8 and 13. A complete reply to the final rejection must include cancellation of nonelected claims or other appropriate action (37 CFR 1.144) See MPEP § 821.01.

Double Patenting

2. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

3. Claim 12 is rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 4 and 3 of U.S. Patent No. 6,517,744. Although the conflicting claims are not identical, they are not patentably distinct from each other, because the present claims of this present application are clearly anticipated by claims 4 and 3 of the Patent No. 6,517,744, and are broad enough to encompass scope of claims 4 and 3 of the Patent No. 6,517,744, wherein the magnetic fibrous filler as recited in claim 12 of this present application is anticipated by a magnetic substance and a carbon fiber (claim 4 of the Patent), and in which the magnetic substance adheres to the carbon fiber on its surface (claim 3 of the Patent).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claim Rejections - 35 USC § 102

4. Claim 12 is rejected under 35 U.S.C. 102(e) as being anticipated by Hara et al (6,517,744).

The Hara et al reference including another inventor named "Ryoji Setaka" teach a process for producing a composite sheet in semi-cured form comprising the steps of: sheeting a composition for composite sheet into a sheet of given thickness, said composition comprising a magnetic fibrous filler (A) and a binder (B), said binder (B) comprising a photocuring component and a thermosetting component (column 50, lines 3-12), and not only applying a magnetic field to the composition sheet in the direction of the thickness of the composition sheet so as to orientate the magnetic fibrous filler (A) in the direction of the thickness of the composition sheet by also curing the photocuring component of the sheeted composition, thereby obtaining a semi-cured composite sheet (col 50, lines 13-19; and col 47, line 55 through col 48, line 40; Figs 5-7; cols 29-30).

(Noted that in the absence of objective evidence to the contrary (e.g. affidavit or declaration), the 6,517,744 reference of Hara above was made "by another" due to having different inventive entity with another inventor named "Ryoji Setaka").

5. Claim 12 is rejected under 35 U.S.C. 102(e) as being anticipated by McArdle et al (6,180,226).

McArdle et al teach a process for producing a composite sheet in semi-cured form comprising the steps of: sheeting a curable composition for composite sheet into a sheet of given thickness, said curable composition comprising a magnetic fibrous filler (A) (col 20, line 43 through col 21, line 36; col 21, lines 32-35) and a binder (B), said binder (B) of the curable composition comprising a mixed composition having a photocuring component and a

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thermosetting component therein (column 18, line 50 through col 19; col 19, lines 34-46, lines 56-67; col 32, lines 32-45), and not only applying a magnetic field to the composition sheet in the direction of the thickness of the composition sheet so as to orientate the magnetic fibrous filler (A) in the direction of the thickness of the composition sheet by also curing the photocuring component of the sheeted composition, thereby obtaining a semi-cured or partially cured composite sheet (col 32, lines 3-45; col 6, lines 53-67; col 15, lines 60-65; and Figure 11, col 30, line 40 through col 32), wherein photocuring component is cured by light irradiation, and wherein thermosetting component is uncured and remained in the thin film sheet, wherein partially cured (semi-cured) thin film sheet is mentioned at column 3, lines 54-57.

Claim Rejections - 35 USC § 103

6. Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over Jiang et al (6,011,307) taken with Wang et al (5,519,177).

Jiang et al teach a process for producing a composite sheet in semi-cured form comprising the steps of: sheeting a composition for composite sheet into a sheet of given thickness, said curable composition comprising a magnetic fibrous filler (A) and a binder (B) 112,214, said binder (B) comprising either a thermoplastic component or a thermosetting component (Figs 3-26; col 5, line 38 through col 9), and not only applying a magnetic field (Fig 15; col 6, line 65 through col 7, line 19) to the composition sheet in the direction of the thickness of the composition sheet so as to orientate the magnetic fibrous filler 114,212 (col 8, line 38 through col 9, line 40) in the direction of the thickness of the composition sheet by also partially curing the thermo component of the sheeted composition, thereby obtaining a semi-cured or partially cured composite sheet (col 5, lines 51-55).

Jiang et al lack using a composition having a binder comprising a photocuring component and a thermosetting component, wherein the photocuring component is cured thereby obtaining a semi-cured composite sheet.

However, Wang describes (at col 1, lines 63, 60-67) the adhesive and peeling problem of using the thermosetting resin component, then teaches (at col 2, line 20-27) the use of mixed resin including uncured thermosetting resin (as thermosetting component) including a resin substituted at a part of functional group with a photosensitive group (as photocuring component)

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and thermoplastic, and also teach (at column 20, lines 18-55) the use of a composition having a binder comprising a thermosetting resin with partly photosensitized (as photocuring component), wherein curing by irradiating an UV light cured the photosensitized component while the thermosetting component is uncured thereby obtaining a semi-cured composite sheet.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to form the composite sheet of Jiang by using the composition having a binder comprising having a binder comprising a thermosetting resin with partly photosensitized (as photocuring component) and thermoplastic, as taught by Wang. This is because of the desirability to form an adhesive layer having an excellent adhesive property so as to improve bonding strength, wherein curing by irradiating an UV light cured the photosensitized component while the thermosetting component is uncured thereby obtaining a semi-cured composite sheet.

Response to Arguments

7. Applicant's remarks filed November 21, 2003 have been fully considered but they are not persuasive.

Regarding rejection using Hara et al reference:

** After mentioning that "...Hara et al discloses... **a magnetic substance and a carbon fiber...**", Applicant remarked (at 11/21/03 remark pages 2-3) As can be seen, in Hara et al, **a magnetic substance is used together with a carbon fiber**. Hara et al neither discloses or suggests the use of **a magnetic fibrous filler**".

In response, this is noted and found unconvincing. First, to the contrary, Hara et al also clearly teach "...wherein the **carbon fiber 5 to whose surface the magnetic substance is adhering is orientated** in the binder 2 in the direction of the thickness of the heat-conductive sheet..." (col 29, lines 35-42), wherein teaching of magnetic substance adhering to the surface of carbon fiber is clearly addressed by Hara et al (see column 19, lines 17-55; and col 18, lines 9-67). Accordingly, the carbon fiber having the magnetic substance adhered to the carbon fiber on its surface is considered the same as the magnetic fibrous filler as claimed by Applicant.

Regarding rejection using McArdle et al reference:

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** Applicant remarked (11/21/03 remark page 4, last two paragraphs to page 5) that “McArdle et al disclosed... a monolayer of substantive particles which are obtained by coating a nonmagnetic, nonconductive core with electrical conductive metal...”. McArdle et al neither discloses nor suggest all of the above-emphasized limitations...”

In response, this is noted and found unconvincing. Applicant apparently alleged that the substantive particles of McArdle et al are nonmagnetic particles. However, to the contrary, McArdle et al also expressly teach (at col 20, lines 43-67) that the “**substantive particles may also be magnetic**” (col 20, line 43). As can be further seen, col 26, line 49 of McArdle et al is expressly disclosed the “Magnetic particles...”.

Regarding rejection using Jiang taken with Wang et al:

** Applicant remarked (at 11/21/03 remark page 5) that “...Jiang et al neither discloses nor suggests the combination of a photocuring component and a thermosetting component, as required by the present invention...”.

In response, this is noted and found unconvincing. This is a 35 USC 103 rejection, not 35 USC 102 rejection. It is well settled that one can not show non-obviousness by attacking the references individually where, as here, the rejection is based on combinations of references. In re Young, 403 F.2d 754, 159 USPQ 725 (CCPA 1968); In re Keller 642 F.2d 413, 208 USPQ 871 (CCPA 1981). Moreover, the rejection is not overcome by pointing out that one reference does not contain a particular limitation when reliance for that teaching is on another reference. In Re Lyons 150 USPQ 741 (CCPA 1966).

Herein, Applicant admitted that (at 11/21/03 remark page 5, last paragraph) that “...Wang discloses adhesives containing a mixture of thermoplastic resin and uncured thermosetting or photosensitive resin”.

Applicant however alleged that “Wang et al neither discloses nor suggests a composition containing a magnetic fibrous filler (A) nor a semi-cured binder comprising a thermosetting component and a component resulting from curing a photocuring component (cured component) together with the magnetic fibrous fiber...”.

In response, again, this is noted and found unconvincing. This is a 35 USC 103 rejection, not 35 USC 102 rejection. It is well settled that one can not show non-obviousness by attacking

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the references individually where, as here, the rejection is based on combinations of references. In re Young, 403 F.2d 754, 159 USPQ 725 (CCPA 1968); In re Keller 642 F.2d 413, 208 USPQ 871 (CCPA 1981).

The combined references including Jiang and Wang prima facie obviously establish the claimed invention. Herein, Jiang et al teach a composition for composite sheet into a sheet of given thickness, said curable composition comprising a magnetic fibrous filler (A) and a binder (B) 112,214, said binder (B) comprising either a thermoplastic component or a thermosetting component (Figs 3-26; col 5, line 38 through col 9), and not only applying a magnetic field (Fig 15; col 6, line 65 through col 7, line 19) to the composition sheet in the direction of the thickness of the composition sheet so as to orientate the magnetic fibrous filler 114,212 (col 8, line 38 through col 9, line 40) in the direction of the thickness of the composition sheet by also partially curing the thermo component of the sheeted composition, thereby obtaining a semi-cured or partially cured composite sheet (col 5, lines 51-55). Herein, Wang teaches the adhesive and peeling problem of using the thermosetting resin component, then teaches (at col 2, line 20-27) the use of mixed resin including uncured thermosetting resin (as thermosetting component) including a resin substituted at a part of functional group with a photosensitive group (as photocuring component) and thermoplastic, and also teach (at column 20, lines 18-55) the use of a composition having a binder comprising a thermosetting resin with partly photosensitized (as photocuring component), wherein curing by irradiating an UV light cured the photosensitized component while the thermosetting component is uncured thereby obtaining a semi-cured composite sheet. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to form the composite sheet of Jiang by using the composition having a binder comprising having a binder comprising a thermosetting resin with partly photosensitized (as photocuring component) and thermoplastic, as taught by Wang. This is because of the desirability to form an adhesive layer having an excellent adhesive property so as to improve bonding strength, wherein curing by irradiating an UV light cured the photosensitized component while the thermosetting component is uncured thereby obtaining a semi-cured composite sheet, wherein the orientated magnetic fibrous filler hardly return to the former state.

Accordingly, the rejection is not overcome by pointing out that one reference does not contain a particular limitation when reliance for that teaching is on another reference. In Re

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Lyons 150 USPQ 741 (CCPA 1966). Also, it has been held that the test for obvious is not whether the features of one reference may be bodily incorporated into the other to produce the claimed subject matter but simply what the combination of references makes obvious to one of ordinary skill in the pertinent art. In Re Van Beckum 169 USPQ 47 (CCPA 1971).

In further response to applicant's apparent argument that the applicant has different reason for e.g. "...do not return to their former state...", or advantage resulting from doing what the prior art relied upon has suggested, it is noted that it is well settled that this is not demonstrative of non-obviousness, In Re Kronig 190 USPQ 425, 428 (CCPA 1976); In Re Lintner 173 USPQ 560 (CCPA 1972); the prior art motivation or advantage may be different than that of applicant while still supporting a conclusion of obviousness. In Re Wiseman 201 USPQ 658 (CCPA 1979); Ex Parte Obiaya 227 USPQ 58 (Bd. of App. 1985). The test for combining references is what the combination of disclosures taken as a whole would suggest to one of ordinary skill in the art. In re McLaughlin 170 USPQ 209 (CCPA 1971); In Re Rosselet 146 USPQ 183 (CCPA 196). References are evaluated by what they collectively suggest to one versed in the art, rather than by their specific disclosures. In Re Simon, 174 USPQ 114 (CCPA 1972); In Re Richman 165 USPQ 509, 514 (CCPA 1970).

Herein, as shown in Figures 14-20 of Jiang, the magnetic fibrous fibers do not return to their former state after being applied with a magnetic field.

*** Regarding obviousness-type double patenting:

Applicant just remarked (remark page 6, last paragraph) that "...as discussed above... The arguments made thus apply herein as well...".

In response, as discussed above regarding the prior art rejection over Hara et al, and repeated herein as well, Applicant's arguments about Hara are found unconvincing.

Accordingly, the obviousness-type double patenting rejection is outstanding and maintained.

Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event,

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however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael M. Trinh whose telephone number is (571) 272-1847. The examiner can normally be reached on M-F from 8:30 Am to 4:30 Pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Amir Zarabian can be reached on (571) 272-1852. The fax phone number is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.
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Michael Trinh
Primary Examiner